

Serial Number 10/673,650

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

What is claimed is:

Claim 1 (currently amended) A balloon catheter having a proximal end and a distal end for medically treating a patient, comprising:

a hypotube having a proximal tubular portion, an intermediate tubular portion having a longitudinal indentation, and a distal portion with an arcuate non-tubular cross-section; an inner tubular body having a proximal and distal end, and defining a proximal and distal guidewire port at each end respectively, and a guidewire lumen extending between the guidewire ports; an outer tubular body having a proximal and distal end, and surrounding at least a portion of the inner tubular body;

the proximal ends of the inner and outer tubular bodies being affixed together and sealed to the hypotube at a point defined at or near a transition between the intermediate and distal portions of the hypotube;

a balloon affixed to the inner and outer tubular bodies at or near their distal ends; an inflation lumen extending from a proximal end of the hypotube, through the hypotube proximal and intermediate tubular portions, and through an annular space between the outer and inner tubular bodies, into an interior of the balloon;

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the distal portion of the hypotube extending a distance into the outer tubular body;
providing a transition in flexibility between the tubular portions of the hypotube to the
inner and outer bodies;
the balloon catheter thus having a rapid-exchange configuration.

Claim 2 (previously presented) The balloon catheter of Claim 1, wherein the balloon has a central inflatable portion between a proximal collar and a distal collar each affixed to the outer and inner tubular bodies, respectively.

Claim 3 (original) The balloon catheter of Claim 1, wherein the hypotube is integral and unitary.

Claim 4 (cancelled)

Claim 5 (original) The balloon catheter of Claim 1, wherein the longitudinal indentation is shallower in a proximal direction, and deeper in a distal direction.

Claim 6 (original) The balloon catheter of Claim 1, wherein the proximal portion of the hypotube is cylindrical.

Claim 7 (original) The balloon catheter of Claim 6, further comprising a tapering portion between the proximal cylindrical portion and the indented intermediate portion.

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Claim 8 (original) The balloon catheter of Claim 1 further comprising a stent crimped around the balloon.

Claim 9 (original) The balloon catheter of Claim 1, wherein the proximal ends of the inner and outer tubular bodies are sealed to the hypotube with a single seal.

Claim 10 (original) The balloon catheter of Claim 1, wherein the hypotube is made of stainless steel.